HIGH VOLTAGE BIAS FEEDBACK FOR DIAGNOSTIC PURPOSES

Abstract of the Disclosure

This invention discloses a method and apparatus for identifying potential problems within systems having rotating biased components. The system employs diagnostics to the rotating biased components to provide status feedback to the machine's control unit when any type of bias fault has occurred. The system then responds to this fault signal making it possible to stop imaging and alert the machine operator that bias faults may adversely affect the image quality of the prints being produced. The present invention also discloses a method for detecting open load, over load, shorted load and intermittent contact with the load or arcing conditions, as well as power supply output failure in a bias system. A digital signal that may be may be sensed by interrupt or sampling methods and filtered appropriately with software is provided to a machine control system. The result is that bias failures may be detected automatically by machine control, preventing the machine from producing additional prints with degraded image quality. The system also provides a method to alert the operator service personnel on which area of the machine to service. This is particularly useful for enabling the operator to replace cartridges in the machine that need replenishment. In a machine with multiple imaging modules, each with multiple biased loads, such a system is necessary to enable efficient servicing of the machine.